UK Potato Research and Knowledge Exchange

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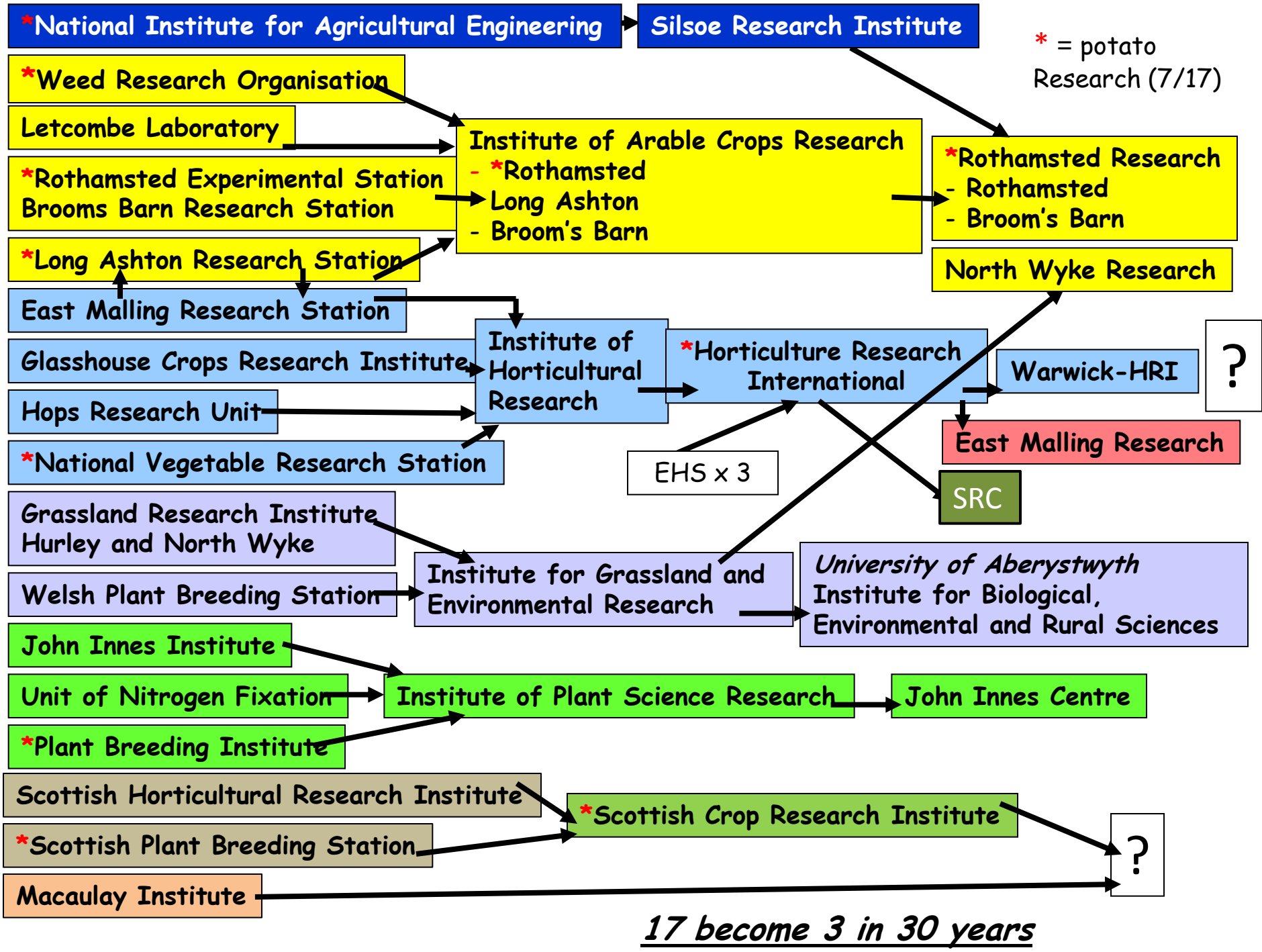
Funding for UK potato R&KE

- Scottish Government *ca.* £4.5m p.a
  - SCRI and SAC
- Defra *ca.* £1.6m p.a (incl. LINK)
  - Warwick HRI, Rothamsted, Fera
- BBSRC *ca.* £1.9m p.a.
  - Sainsbury Lab, Rothamsted & Universities (e.g. Leeds)
- AHDB - Potato Council *ca.* £1.6m
  - 6 main contractors – Cambridge, SCRI, SAC, SASA, FERA and Sutton Bridge

TOTAL = *ca.* £9.6m p.a.


*National Institute for Agricultural Engineering
Silsoe Research Institute
* = potato Research (7/17)
*Weed Research Organisation
Letcombe Laboratory
Institute of Arable Crops Research
- *Rothamsted
Long Ashton
- Broom's Barn
*Rothamsted Experimental Station
Brooms Barn Research Station
*Rothamsted Research
- Rothamsted
- Broom's Barn
*Long Ashton Research Station
North Wyke Research
East Malling Research Station
Institute of Horticultural Research
*Horticulture Research International
Warwick-HRI
?
Glasshouse Crops Research Institute
Hops Research Unit
East Malling Research
*National Vegetable Research Station
EHS x 3
SRC
Grassland Research Institute Hurley and North Wyke
Institute for Grassland and Environmental Research
University of Aberystwyth Institute for Biological, Environmental and Rural Sciences
Welsh Plant Breeding Station
John Innes Institute
Unit of Nitrogen Fixation
Institute of Plant Science Research
John Innes Centre
*Plant Breeding Institute
Scottish Horticultural Research Institute
*Scottish Crop Research Institute
?
*Scottish Plant Breeding Station
Macaulay Institute
17 become 3 in 30 years

UK potato research capability

•***Cambridge*** – CUF – agronomy/crop nutrition; virus resistance; *Erwinia* pathogenesis; disease epidemiology

•***Sutton Bridge*** – crop storage

Should we be creating and supporting a co-ordinated, cooperative UK research platform ?

•***Univ. of Leeds*** – nematology – PCN · ***Harper Adams College*** – nematology – PCN

• ***SAC*** – pathology, agronomy, extension

Do we have a feasible succession plan to counter erosion of skills?

• ***Rothamsted Research*** - nematology (?); tuber biochemistry (acylamide; sprouting)

• ***SCRI*** – CPC/genomics/genetics/breeding; pathology (blight, *Erwinia*); nematology (PCN); entomology (aphids); virology

•***FERA/SASA*** - pathogen diagnostics; quarantine; certification

•***Sainsbury Laboratory*** – *Phytophthora* pathogenesis and blight resistance

Potato Council Research Strategy

Improve competitiveness =

Increase marketable yield

Optimise use of resources

Reduce defects

Within the legislative and environmental envelope for farming

Potato Council: research priorities

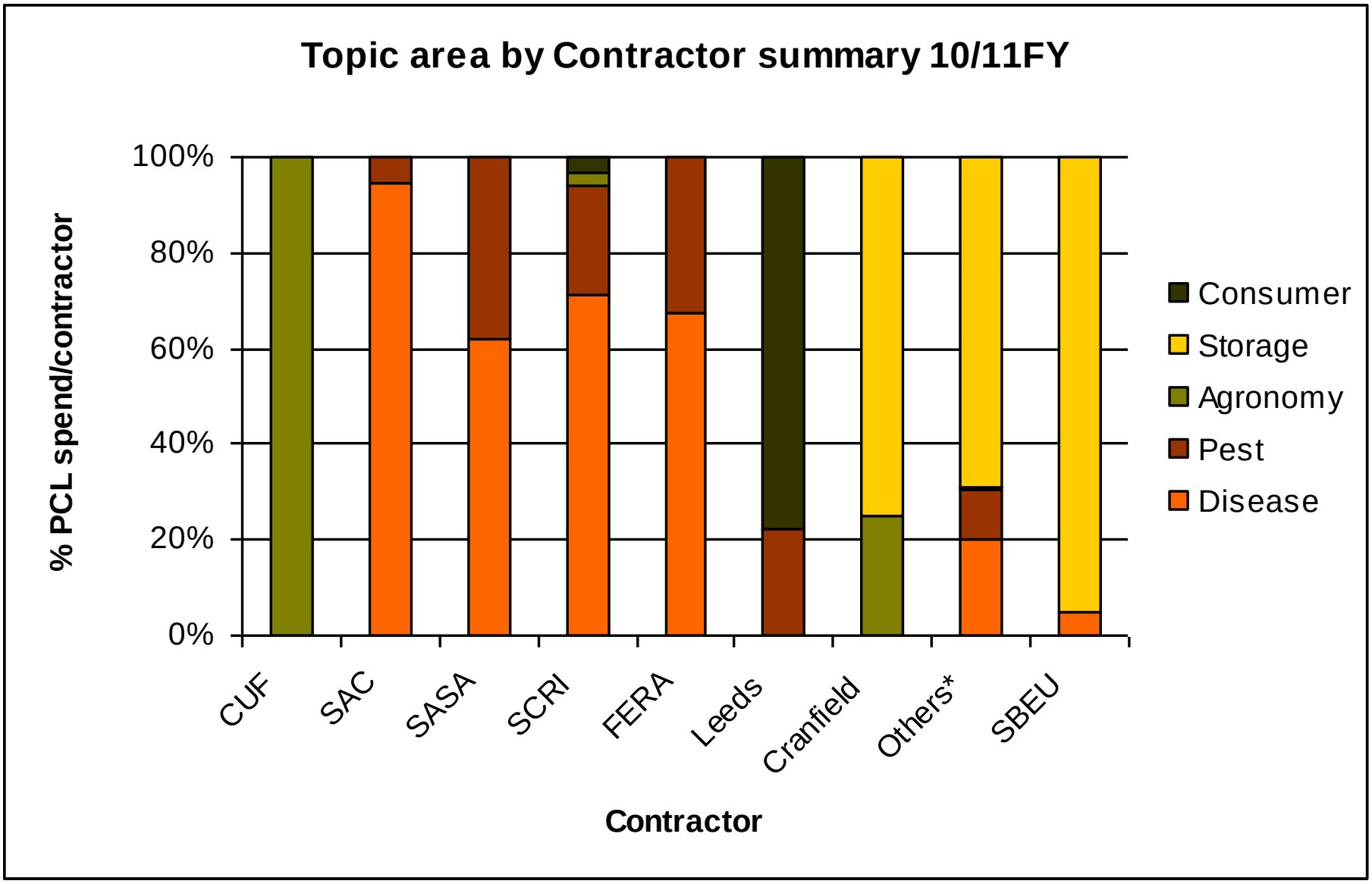
Focus on research, that during a 3-5 yr timescale, will deliver practical *benefits for competitiveness and costs*, taking account of *quality requirements* of end users and *compliance* issues affecting production

Research Programme areas

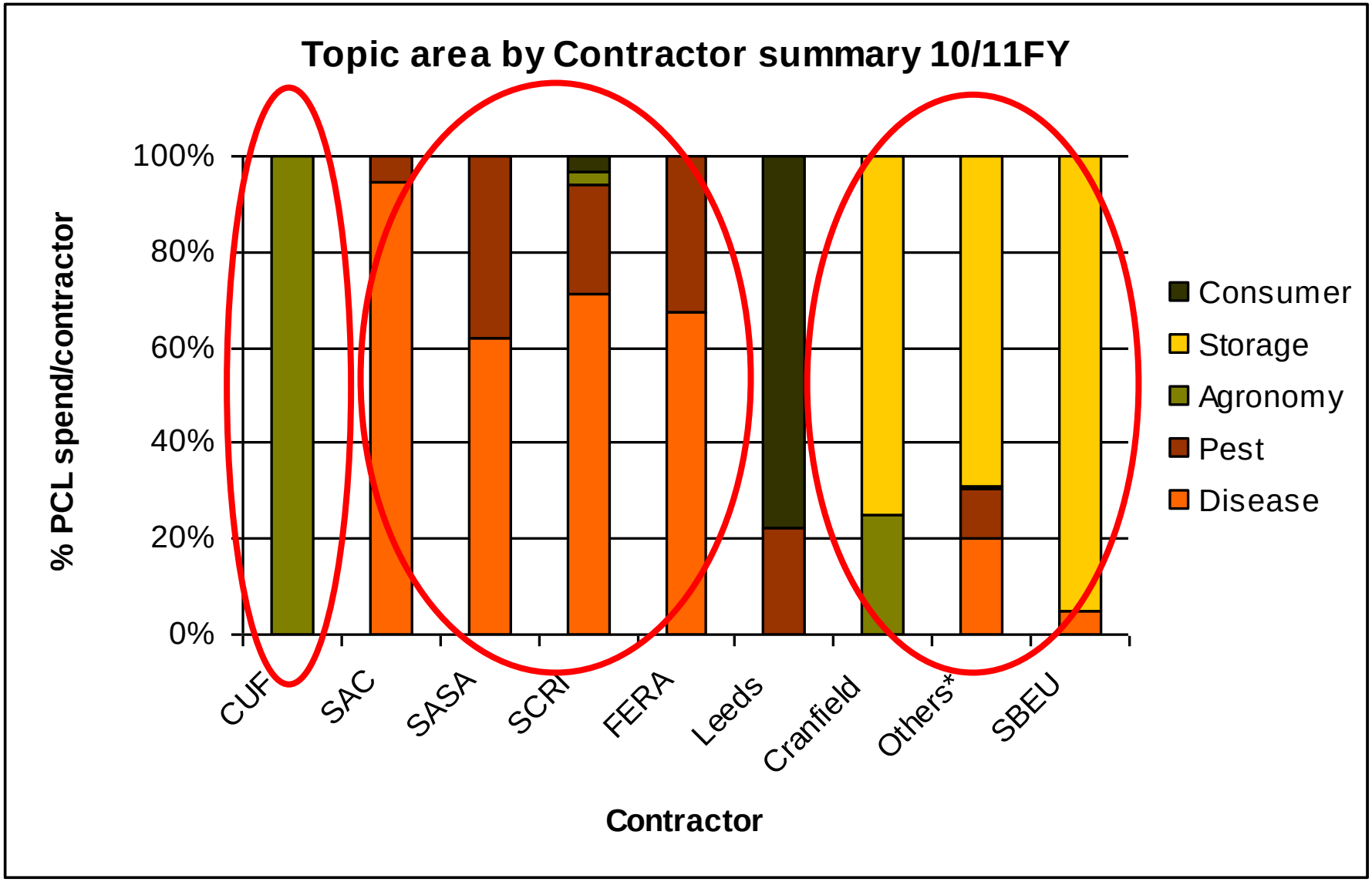
- **Crop uniformity**
- **Pests and diseases**
- **Seed quality**
- **Water use**
- **Rotations**
- **Bruising and damage**
- **Residue minimisation**
- **Storage**
- **Processing quality**
- **Consumer requirements**

Potato Council portfolio

Potato Council Research Contractors 1.



Potato Council Research Contractors 2.



Potato Council Research Strategy…

- LINK projects:
  - Acrylamide
  - Blight management
  - Pack house diagnostics
  - Ethylene
  - Phosphorus management
    - *In total new LINK projects worth £700k p.a*
- Opportunity to engage with other AHDB sectors
- Technology Strategy Board – a new approach
- Advanced Training Partnerships – BBSRC supported

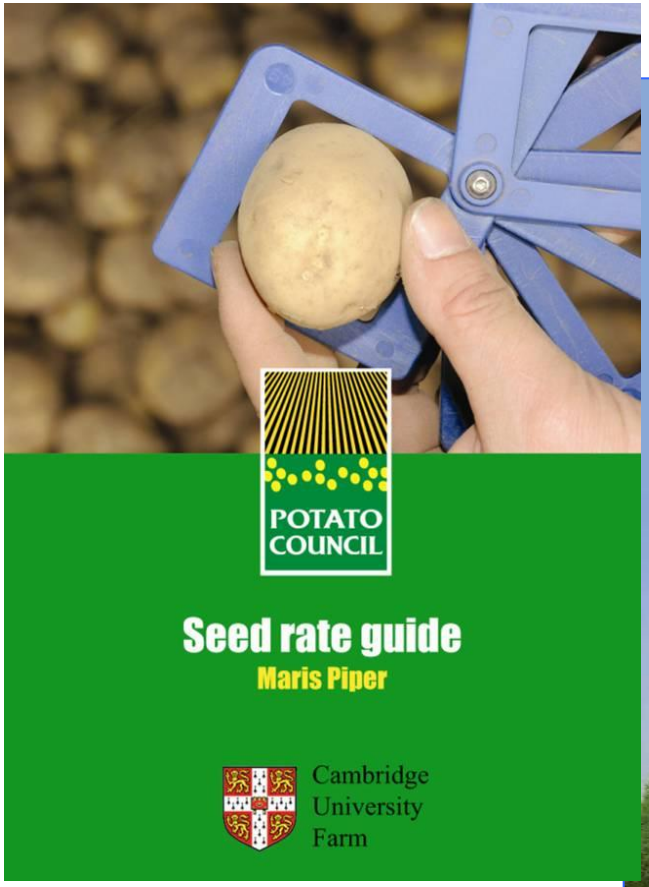
Levy payers will benefit from targeted research that will improve marketable yield and profitability

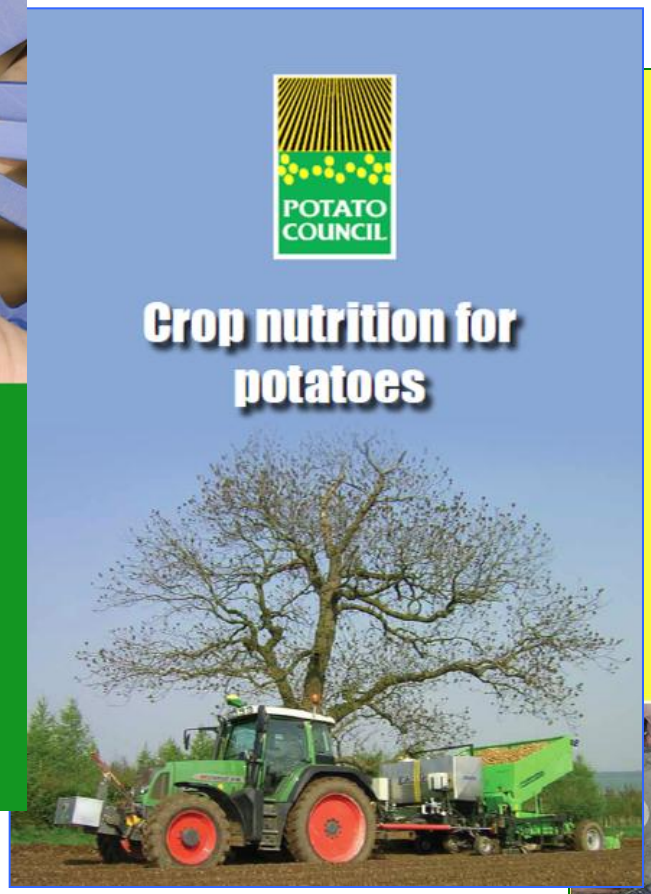
Practical research and delivery into industry

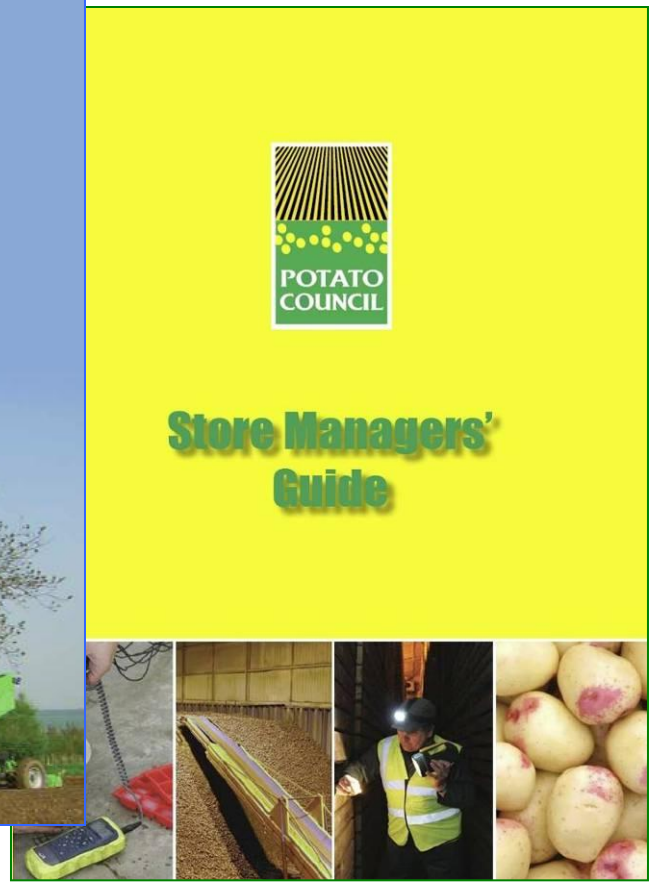
- Seed rates
- Fertiliser response
- Improving water usage
- Soil management
- Weed control
- Disease diagnostics
- PCN management
- CIPC stewardship
- Store management

- Grower collaboration

Comprehensive guidance on crop agronomy and storage







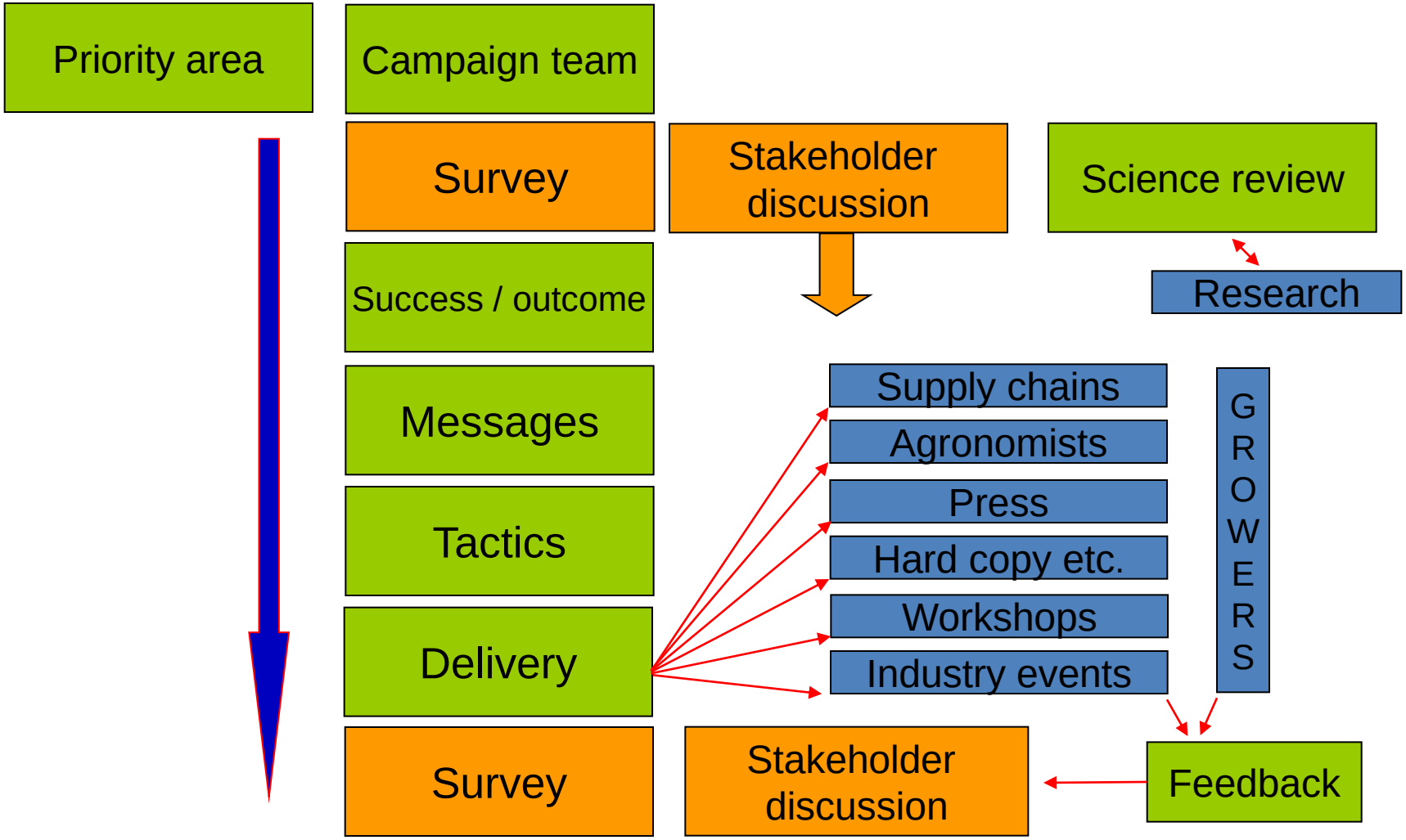
Primary audiences

	Organisations	Individuals
Growers	**2,900**	**4,663**
Packers/Processors/Peelers	**290**	**1,119**
Merchants	**191**	**391**
Agronomists		**822**
Defra/EA/FSA/RDA/NFU's etc	**105**	**362**
Marketing agencies/ Educational and farming press	**196**	**401**

Knowledge Exchange Principles

- Research & KE prioritisation
  - Committee
  - Stakeholder engagement
  - Transparent
- Evidence based info/ advice?
- Evidence based process
- **Robust, reliable, independent, timely**

KE Process - Campaigns



KT Priorities

Pest & Disease			Agronomy			Storage		
Blight	Aphid	PCN	Fertiliser	Seed	Soil & water	Energy	Sprout	Best Practice
Stewardship			Collaboration			SBEU services		
Business improvement								
Media development								

KE Partners

- **Supply chain**
- **Commercial advice / agronomy**
- **Other commercial**
- **Trade bodies**
- **Policy and regulation**

- **Criteria – assessed dynamically**
  - **Who gets bums on seats**
  - **Who has newsletters**
  - **Who has outreach**

Thank you for your attention

Questions?